

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:
a scanning means for scanning a photosensitive
body using a plurality of semiconductor lasers to form
5 a latent image; and
a latent image forming means for pulse-width-
modulating a drive signal of the semiconductor lasers
in accordance with a write position of the latent
image, when exposure is performed such that one of
10 beams from the plurality of semiconductor lasers is
partially overlapped with a beam adjacent to one of the
beams from the plurality of semiconductor lasers on the
photosensitive body.

15 2. An image forming apparatus according to claim
1, wherein the latent image forming means does not
pulse-width-modulate the drive signal, when at least
two of the plurality of semiconductor lasers are
simultaneously turned on in one scanning, and
20 the latent image forming means pulse-width-
modulates the drive signal, when one of the beams from
the plurality of semiconductor lasers which are turned
on in one scanning is adjacent to one of the beams from
the plurality of semiconductor lasers which are turned
25 on in the next scanning.

~~3. An image forming apparatus according to claim~~

SEARCHED SERIALIZED INDEXED

*Sub
App
(entd)*

1, wherein the latent image forming means does not pulse-width-modulate the drive signal, when at least two of the plurality of semiconductor lasers are simultaneously turned on in one scanning, and

5 the latent image forming means pulse-width-modulates the drive signal, when one of the plurality of semiconductor lasers is turned on in one scanning.

10 4. An image forming method for scanning the photosensitive body using a plurality of semiconductor lasers to form a latent image, comprising the step of: forming a latent image by modulating a drive signal of the semiconductor lasers by PWM in accordance with a write position of the latent image, when

15 exposure is performed such that one of the beams from the plurality of semiconductor lasers is partially overlapped with an adjacent beam of one of the beams from the plurality of semiconductor lasers on the photosensitive body.

20 5. An image forming method according to claim 4, wherein, in the latent image forming step, the drive signal is not modulated by PWM when at least two of the plurality of semiconductor lasers are simultaneously turned on in one scanning but modulated by PWM when one of the beams from the plurality of semiconductor lasers which are turned on in one scanning is adjacent to one

*Sub
App*

08894572860
TOKYO ELECTRON LTD.

~~of the beams from the plurality of semiconductor lasers which are turned on in the next scanning.~~

6. An image forming method according to claim 4,
5 wherein, in the latent image forming step, the drive
signal is not modulated by PWM when at least two of the
plurality of semiconductor lasers are simultaneously
turned on in one scanning but modulated by PWM when one
of the plurality of semiconductor lasers is turned on
10 in one scanning.

7. An image forming apparatus comprising:
a plurality of emitting means for emitting a
plurality of light beams;
15 scanning means for scanning the plurality of light
beams emitted from the plurality of emitting means on a
common photosensitive body;
modulating means for modulating the plurality of
light beams in accordance with respective image data;
20 detecting means for detecting a plurality of image
pixels which are adjacent to each other in a sub
scanning direction and exposed in different main
scannings, in accordance with the image data; and
exposure intensity control means for relatively
decreasing an exposure intensity of the light beams for
25 at least one of the plurality of image pixels detected
by the detecting means, in response to a detection

Sub
X²
(conct)

~~result of the detecting means~~

8. An image forming apparatus according to claim
7, wherein the exposure intensity control means
5 controls an exposure time of the light beams for
recording one pixel.

9. An image forming apparatus according to claim
8, wherein the exposure intensity control means causes
10 the modulating means to pulse-width-modulate.

10. An image forming apparatus according to claim
9, wherein the exposure intensity control means
controls the modulating means such that a pulse width
to a pixel detected by the detecting means is shorter
than that to a pixel which is not detected by the
detecting means.

11. An image forming apparatus according to claim
10, wherein the exposure intensity control means
controls the modulating means such that the pulse width
to the pixel detected by the detecting means is shorter
than 100 % and the pulse width to the other pixel is
100 %.

25

12. An image forming apparatus according to claim 7, wherein the detecting means has means for storing

ప్రాణి విషయ

526
43

*Sub
A3
Contd)*

~~image data of at least one main scanning~~

13. An image forming apparatus according to claim 7, wherein exposure is performed such that adjacent 5 pixels are partially overlapped with each other.

14. An image forming apparatus according to claim 7, wherein the light beam is a laser beam.

10 15. An image forming apparatus comprising:
 a plurality of emitting means for emitting a
 plurality of light beams;
 scanning means for scanning the plurality of light
 beams emitted from the plurality of emitting means on a
15 common photosensitive body;
 modulating means for modulating the plurality of
 light beams in accordance with respective image data;
 detecting means for detecting a plurality of image
 pixels which are adjacent to each other in a sub
20 scanning direction and exposed in the common main
 scanning, in accordance with the image data; and
 exposure intensity control means for relatively
 increasing an exposure intensity of the light beams for
 at least one of the plurality of image pixels detected
25 by the detecting means, in response to a detection
 result of the detecting means.

*Sub
A3
Contd*

16. An image forming apparatus according to claim
15, wherein the exposure intensity control means
controls an exposure time of the light beams for
recording one pixel.

5

17. An image forming apparatus according to claim
16, wherein the exposure intensity control means causes
the modulating means to pulse-width-modulate.

10

18. An image forming apparatus according to claim
17, wherein the exposure intensity control means
controls the modulating means such that a pulse width
to a pixel detected by the detecting means is shorter
than that to a pixel which is not detected by the
15 detecting means.

15

19. An image forming apparatus according to claim
18, wherein the exposure intensity control means
controls the modulating means such that the pulse width
20 to the pixel which is detected by the detecting means
is 100 % and the pulse width to the pixel which is not
detected by the detecting means is shorter than 100 %.

20

20. An image forming apparatus according to claim
25 15, wherein the detecting means has means for storing
image data of at least one main scanning.

00000000000000000000000000000000

Sub
X5

21. An image forming apparatus according to claim 15, wherein exposure is performed such that adjacent pixels are partially overlapped with each other.

5 22. An image forming apparatus according to claim 15, wherein the light beam is a laser beam.

23. An image forming method comprising:
an emitting step of emitting a plurality of light
beams;
a scanning step of scanning the plurality of light
beams to be emitted on a common photosensitive body;
a modulating step of modulating the plurality of
light beams in accordance with respective image data;
15 a detecting step of detecting a plurality of image
pixels which are adjacent to each other in a sub
scanning direction and exposed in different main
scannings, in accordance with the image data; and
an exposure intensity control step of relatively
20 decreasing an exposure intensity of the light beams for
at least one of the plurality of image pixels detected
by the detecting step, in response to a detection
result of the detecting step.

25 24. An image forming method comprising:
an emitting step of emitting a plurality of light
beams;

TOP SECRET

*Sub
Ab
(contd)*

a scanning step of scanning the plurality of light beams to be emitted on a common photosensitive body;

a modulating step of modulating the plurality of light beams in accordance with respective image data;

5 a detecting step of detecting a plurality of image pixels which are adjacent to each other in a sub scanning direction and exposed in the common main scanning, in accordance with the image data; and

an exposure intensity control step of relatively increasing an exposure intensity of the light beams for at least one of the plurality of image pixels detected by the detecting step, in response to a detection result of the detecting step.

100-26347-28360

ADD
A7